

US Army Corps of Engineers New York District

# Atlantic Coast of New York, East Rockaway Inlet to Rockaway Inlet and Jamaica Bay

## **Appendix C- Cost**



Draft Integrated Hurricane Sandy General Reevaluation Report and Environmental Impact Statement

PROJECT: East Rockaway Inlet to Rockaway Inlet

PROJECT NO:P2 xxxxxx

LOCATION: Queens, New York

This Estimate reflects the scope and schedule in report;

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	Civil Works Work Breakdown Structure		ESTIMAT	ED COST	
WBS <u>NUMBER</u> <b>A</b>	Civil Works  Feature & Sub-Feature Description  B	COST (\$K) <b>C</b>	CNTG _(\$K) 	CNTG _(%) <i>E</i>	TOTAL _(\$K) <i>F</i>
02 06 10 11 15 17	RELOCATIONS FISH & WILDLIFE FACILITIES BREAKWATER & SEAWALLS LEVEES & FLOODWALLS FLOODWAY CONTROL & DIVERSION STRUCTURE BEACH REPLENISHMENT CULTURAL RESOURCE PRESERVATION	\$100 \$90,800 \$38,799 \$1,096,985 \$594,713 \$401,396 \$25,000	\$54 \$36,374 \$10,709 \$379,337 \$400,777 \$97,298 \$10,015	54.1% 40.1% 27.6% 34.6% 67.4% 24.2% 40.1%	\$154 \$127,174 \$49,508 \$1,476,322 \$995,490 \$498,694 \$35,015
	CONSTRUCTION ESTIMATE TOTALS:	\$2,247,793	\$934,565	_	\$3,182,358
01	LANDS AND DAMAGES	\$29,436	\$5,887	20.0%	\$35,323
30	PLANNING, ENGINEERING & DESIGN	\$55,071	\$7,715	14.0%	\$62,786
31	CONSTRUCTION MANAGEMENT	\$41,810	\$5,858	14.0%	\$47,668
	PROJECT COST TOTALS:	\$2,374,110	\$954,025	40.2%	\$3,328,135
		CHIEF, (	COST EN	GINEER	ING
		PROJEC	T MANA	GER, xx	x
	_	CHIEF, I	REAL ES	TATE, xx	x
		CHIEF, I	PLANNIN	G,xxx	
		CHIEF, I	ENGINEE	RING, xx	κx
		CHIEF,	OPERATI	ONS, xx	x
		CHIEF, 0	CONSTR	UCTION,	xxx
		CHIEF, 0	CONTRA	CTING,x	хх

**** TOTAL PROJECT COST S	SUMMARY ****
	CHIEF, PM-PB, xxxx
	CHIEF, DPM, xxx

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\*\*\*\* CONTRACT (

PROJECT: East Rockaway Inlet to Rockaway Inlet

LOCATION: Queens, New York

	Civil Works Work Breakdown Structure	ESTIMATED COST			
			nate Prepare ive Price Lev		<b>20-Jul-16</b> 1-Oct-15
			F	RISK BASED	
WBS	Civil Works	COST	CNTG	CNTG	TOTAL
NUMBER	Feature & Sub-Feature Description	(\$K)	(\$K)	(%)	(\$K)
Α	В	С	D	E	F
	PHASE 1 or CONTRACT 1				
02	RELOCATIONS	\$100	\$54	54.1%	\$15
06	FISH & WILDLIFE FACILITIES	\$90,800	\$36,374	40.1%	\$127,17
10	BREAKWATER & SEAWALLS	\$38,799	\$10,709	27.6%	\$49,50
11	LEVEES & FLOODWALLS	\$1,096,985	\$379,337	34.6%	\$1,476,32
15	FLOODWAY CONTROL & DIVERSION STRUCTURE	\$594,713	\$400,777	67.4%	\$995,49
17	BEACH REPLENISHMENT	\$401,396	\$97,298	24.2%	\$498,69
18	CULTURAL RESOURCE PRESERVATION	\$25,000	\$10,015	40.1%	\$35,01
01	CONSTRUCTION ESTIMATE TOTALS  LANDS AND DAMAGES	\$2,247,793	\$934,565 \$5,887	41.6%	<b>\$3,182,35</b> 8 \$35,323
30	PLANNING, ENGINEERING & DESIGN				
0.39	% Project Management	\$6,743	\$945	14.0%	\$7,68
0.19	% Planning & Environmental Compliance	\$2,248	\$315	14.0%	\$2,56
0.69	% Engineering & Design	\$12,363	\$1,732	14.0%	\$14,09
0.19	% Reviews, ATRs, IEPRs, VE	\$2,248	\$315	14.0%	\$2,56
0.19	Life Cycle Updates (cost, schedule, risks)	\$2,248	\$315	14.0%	\$2,56
0.19	% Contracting & Reprographics	\$2,248	\$315	14.0%	\$2,56
0.49	Engineering During Construction	\$8,991	\$1,260	14.0%	\$10,25
0.39	3 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$6,743	\$945	14.0%	\$7,68
0.59	% Project Operations	\$11,239	\$1,575	14.0%	\$12,81
31	CONSTRUCTION MANAGEMENT				
1.59	% Construction Management	\$32,818	\$4,598	14.0%	\$37,410
0.29	% Project Operation:	\$4,496	\$630	14.0%	\$5,12
0.29	% Project Management	\$4,496	\$630	14.0%	\$5,120
	CONTRACT COST TOTALS:	\$2,374,110	\$954,025		\$3,328,13

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\*\*\*\* CONTRACT (

PROJECT: East Rockaway Inlet to Rockaway Inlet

LOCATION: Queens, New York

Civil Works Work Breakdown Structure			ESTIMATED COST				
			nate Prepare tive Price Lev		<b>20-Jul-16</b> 1-Oct-15		
WBS	Civil Works	COST	CNTG	CNTG	TOTAL		
NUMBER	Feature & Sub-Feature Description	(\$K)	(\$K)	(%)	(\$K)		
Α	В	С	D	E	F		
	PHASE 2 or CONTRACT 2						
03	RESERVOIRS		\$0		\$0		
04	DAMS		\$0		\$0		
05	LOCKS		\$0		\$0		
06	FISH & WILDLIFE FACILITIES		\$0		\$0		
07	POWER PLANT		\$0		\$0		
80	ROADS, RAILROADS & BRIDGES		\$0		\$0		
09	CHANNELS & CANALS		\$0		\$0		
10	BREAKWATER & SEAWALLS		\$0		\$0		
	CONSTRUCTION ESTIMATE TOTALS:	\$0	\$0	0.0%	\$0		
01	LANDS AND DAMAGES		\$0		\$0		
30	PLANNING, ENGINEERING & DESIGN						
0.3%	Project Management	\$0	\$0	0.0%	\$0		
0.1%	Planning & Environmental Compliance	\$0	\$0	0.0%	\$0		
0.6%	Engineering & Design	\$0	\$0	0.0%	\$0		
0.1%	Reviews, ATRs, IEPRs, VE	\$0	\$0	0.0%	\$0		
0.1%	Life Cycle Updates (cost, schedule, risks)	\$0	\$0	0.0%	\$0		
0.1%	0 1 0 1	\$0	\$0	0.0%	\$0		
0.4%	3 - 3 - 3	\$0	\$0	0.0%	\$0		
0.3%	5 5	\$0	\$0	0.0%	\$0		
0.5%	6 Project Operations	\$0	\$0	0.0%	\$0		
31	CONSTRUCTION MANAGEMENT						
1.5%	Construction Management	\$0	\$0	0.0%	\$0		
0.2%	Project Operation:	\$0	\$0	0.0%	\$0		
0.2%	6 Project Management	\$0	\$0	0.0%	\$0		
	CONTRACT COST TOTALS:	\$0	\$0		\$0		

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\*\*\*\* CONTRACT (

PROJECT: East Rockaway Inlet to Rockaway Inlet

LOCATION: Queens, New York

Civil Works Work Breakdown Structure			ESTIMATED COST				
			nate Prepare tive Price Lev		<b>20-Jul-16</b> 1-Oct-15		
WBS	Civil Works	COST	CNTG	CNTG	TOTAL		
NUMBER	Feature & Sub-Feature Description	(\$K)	(\$K)	<u>(%)</u> <i>E</i>	(\$K) <b>F</b>		
Α	B PHASE 3 or CONTRACT 3	С	D	E	F		
03	RESERVOIRS		\$0		\$0		
04	DAMS		\$0		\$0		
05	LOCKS		\$0		\$0		
06	FISH & WILDLIFE FACILITIES		\$0		\$0		
07	POWER PLANT		\$0		\$0		
08	ROADS, RAILROADS & BRIDGES		\$0		\$0		
09	CHANNELS & CANALS		\$0		\$0		
10	BREAKWATER & SEAWALLS		\$0		\$0		
	CONSTRUCTION ESTIMATE TOTALS:	\$0	\$0	0.0%	\$0		
01	LANDS AND DAMAGES		\$0		\$0		
30	PLANNING, ENGINEERING & DESIGN						
0.39	.,	\$0	\$0	0.0%	\$0		
0.19	3	\$0	\$0	0.0%	\$0		
0.69	0 0	\$0	\$0	0.0%	\$(		
0.19	, -,	\$0	\$0	0.0%	\$0		
0.19		\$0	\$0	0.0%	\$0		
0.19	3 1 1 3 1	\$0	\$0	0.0%	\$(		
0.49	0 0	\$0 \$0	\$0 \$0	0.0%	\$(		
0.39 0.59	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	\$0 \$0	\$0 \$0	0.0% 0.0%	\$( \$(		
0.5	r roject Operations	Φ0	ΦΟ	0.0%	20		
31	CONSTRUCTION MANAGEMENT						
1.59	% Construction Management	\$0	\$0	0.0%	\$0		
0.29	3,111	\$0	\$0	0.0%	\$0		
0.29	% Project Management	\$0	\$0	0.0%	\$0		
	CONTRACT COST TOTALS:	\$0	\$0		\$(		

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\*\*\*\* CONTRACT (

PROJECT: East Rockaway Inlet to Rockaway Inlet

LOCATION: Queens, New York

Civil Works Work Breakdown Structure		ESTIMATED COST				
		Estimate Prepared: Effective Price Level:			<b>20-Jul-16</b> 1-Oct-15	
WBS	Civil Works	COST	CNTG	CNTG	TOTAL	
NUMBER	Feature & Sub-Feature Description	(\$K)	(\$K)	(%)	(\$K)	
Α	В	С	D	E	F	
00	PHASE 4 or CONTRACT 4		•		•	
03	RESERVOIRS		\$0		\$0	
04	DAMS		\$0		\$0	
05	LOCKS		\$0		\$0	
06	FISH & WILDLIFE FACILITIES		\$0		\$0	
07	POWER PLANT		\$0		\$0	
80	ROADS, RAILROADS & BRIDGES		\$0		\$0	
09	CHANNELS & CANALS		\$0		\$0	
10	BREAKWATER & SEAWALLS		\$0		\$0	
	CONSTRUCTION ESTIMATE TOTALS:	\$0	\$0	0.0%	\$0	
01	LANDS AND DAMAGES		\$0		\$0	
30	PLANNING, ENGINEERING & DESIGN					
0.3	% Project Management	\$0	\$0	0.0%	\$0	
0.1	% Planning & Environmental Compliance	\$0	\$0	0.0%	\$0	
0.6	% Engineering & Design	\$0	\$0	0.0%	\$0	
0.1	% Reviews, ATRs, IEPRs, VE	\$0	\$0	0.0%	\$0	
0.1	% Life Cycle Updates (cost, schedule, risks)	\$0	\$0	0.0%	\$0	
0.1	% Contracting & Reprographics	\$0	\$0	0.0%	\$0	
0.4	% Engineering During Construction	\$0	\$0	0.0%	\$0	
0.3	% Planning During Construction	\$0	\$0	0.0%	\$0	
0.5	% Project Operations	\$0	\$0	0.0%	\$0	
31	CONSTRUCTION MANAGEMENT	_	_			
1.5	3	\$0	\$0	0.0%	\$0	
0.2	.,	\$0	\$0	0.0%	\$0	
0.2	% Project Management	\$0	\$0	0.0%	\$0	
	CONTRACT COST TOTALS:	\$0	\$0		\$0	

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\*\*\*\* CONTRACT (

PROJECT: East Rockaway Inlet to Rockaway Inlet

LOCATION: Queens, New York

Civil Works Work Breakdown Structure			ESTIMATED COST				
			mate Prepare tive Price Lev		<b>20-Jul-16</b> 1-Oct-15		
WBS	Civil Works	COST	CNTG	CNTG	TOTAL		
NUMBE		(\$K)	(\$K)	(%)	(\$K)		
Α	B	С	D	E	F		
03	PHASE 5 or CONTRACT 5 RESERVOIRS		\$0		\$		
03	DAMS		\$0 \$0		\$		
05					•		
06	LOCKS		\$0		\$		
06 07	FISH & WILDLIFE FACILITIES		\$0 \$0		\$		
07	POWER PLANT		\$0 \$0		\$ \$		
	ROADS, RAILROADS & BRIDGES		\$0		•		
09 10	CHANNELS & CANALS BREAKWATER & SEAWALLS		\$0 \$0		\$		
	BREAKWATER & GEAWALLO		ΨΟ		•		
	CONSTRUCTION ESTIMATE TOT	ALS: \$0	\$0	0.0%	\$		
01	LANDS AND DAMAGES		\$0		\$		
30	PLANNING, ENGINEERING & DESIGN						
	0.3% Project Management	\$0	\$0	0.0%	\$		
	0.1% Planning & Environmental Compliance	\$0	\$0	0.0%	\$		
	0.6% Engineering & Design	\$0	\$0	0.0%	\$		
	0.1% Reviews, ATRs, IEPRs, VE	\$0	\$0	0.0%	\$		
	0.1% Life Cycle Updates (cost, schedule, risks)	\$0	\$0	0.0%	\$		
	0.1% Contracting & Reprographics	\$0	\$0	0.0%	\$		
	0.4% Engineering During Construction	\$0	\$0	0.0%	\$		
	0.3% Planning During Construction	\$0	\$0	0.0%	\$		
	0.5% Project Operations	\$0	\$0	0.0%	\$		
31	CONSTRUCTION MANAGEMENT						
	1.5% Construction Management	\$0	\$0	0.0%	\$		
	0.2% Project Operation:	\$0	\$0	0.0%	\$		
	0.2% Project Management	\$0	\$0	0.0%	\$		
	CONTRACT COST TOT	<b>ALS:</b> \$0	\$0		\$		

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\*\*\*\* CONTRACT (

PROJECT: East Rockaway Inlet to Rockaway Inlet

LOCATION: Queens, New York

Civil Works Work Breakdown Structure		ESTIMATED COST				
			mate Prepare tive Price Lev		<b>20-Jul-16</b> 1-Oct-15	
WBS	Civil Works	COST	CNTG	CNTG	TOTAL	
NUMBER	Feature & Sub-Feature Description	(\$K)	(\$K)	(%)	(\$K)	
Α	В	С	D	E	F	
	PHASE 6 or CONTRACT 6				_	
03	RESERVOIRS		\$0		\$1	
04	DAMS		\$0		\$	
05	LOCKS		\$0		\$	
06	FISH & WILDLIFE FACILITIES		\$0		\$	
07	POWER PLANT		\$0		\$	
80	ROADS, RAILROADS & BRIDGES		\$0		\$	
09	CHANNELS & CANALS		\$0		\$(	
10	BREAKWATER & SEAWALLS		\$0		\$0	
	CONSTRUCTION ESTIMATE TOTALS:	\$0	\$0	0.0%	\$(	
01	LANDS AND DAMAGES		\$0		\$6	
30	PLANNING, ENGINEERING & DESIGN					
0.39		\$0	\$0	0.0%	\$	
0.19	% Planning & Environmental Compliance	\$0	\$0	0.0%	\$	
0.69	Engineering & Design	\$0	\$0	0.0%	\$	
0.19	Reviews, ATRs, IEPRs, VE	\$0	\$0	0.0%	\$	
0.19	6 Life Cycle Updates (cost, schedule, risks)	\$0	\$0	0.0%	\$	
0.19	% Contracting & Reprographics	\$0	\$0	0.0%	\$	
0.49	% Engineering During Construction	\$0	\$0	0.0%	\$	
0.39	% Planning During Construction	\$0	\$0	0.0%	\$	
0.59	% Project Operations	\$0	\$0	0.0%	\$	
31	CONSTRUCTION MANAGEMENT					
1.59	3	\$0	\$0	0.0%	\$	
0.29	, ,	\$0	\$0	0.0%	\$	
0.29	% Project Management	\$0	\$0	0.0%	\$	
	CONTRACT COST TOTALS:	\$0	\$0		\$	

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\*\*\*\* CONTRACT (

PROJECT: East Rockaway Inlet to Rockaway Inlet

LOCATION: Queens, New York

(	Civil Works Work Breakdown Structure		ESTIMATED COST				
			Estimate Prepared: Effective Price Level:				
WBS	Civil Works	COST	CNTG	CNTG	TOTAL		
NUMBER	Feature & Sub-Feature Description	(\$K)	(\$K)	<u>(%)</u> <i>E</i>	(\$K) <b>F</b>		
Α	В	С	D	E	F		
	PHASE 7 or CONTRACT 7				_		
03	RESERVOIRS		\$0		\$		
04	DAMS		\$0		\$		
05	LOCKS		\$0		\$		
06	FISH & WILDLIFE FACILITIES		\$0		\$		
07	POWER PLANT		\$0		\$		
80	ROADS, RAILROADS & BRIDGES		\$0		\$		
09	CHANNELS & CANALS		\$0		\$6		
10	BREAKWATER & SEAWALLS		\$0		\$1		
	CONSTRUCTION ESTIMATE TOTALS:	\$0	\$0	0.0%	\$		
01	LANDS AND DAMAGES		\$0		\$		
30	PLANNING, ENGINEERING & DESIGN						
0.3%	6 Project Management	\$0	\$0	0.0%	\$		
0.1%	6 Planning & Environmental Compliance	\$0	\$0	0.0%	\$		
0.6%	6 Engineering & Design	\$0	\$0	0.0%	\$		
0.1%	6 Reviews, ATRs, IEPRs, VE	\$0	\$0	0.0%	\$		
0.1%	6 Life Cycle Updates (cost, schedule, risks)	\$0	\$0	0.0%	\$		
0.1%	6 Contracting & Reprographics	\$0	\$0	0.0%	\$		
0.4%	6 Engineering During Construction	\$0	\$0	0.0%	\$		
0.3%	6 Planning During Construction	\$0	\$0	0.0%	\$		
0.5%	6 Project Operations	\$0	\$0	0.0%	\$		
31	CONSTRUCTION MANAGEMENT						
1.5%	3	\$0	\$0	0.0%	\$		
0.2%	3,	\$0	\$0	0.0%	\$		
0.2%	6 Project Management	\$0	\$0	0.0%	\$		
	CONTRACT COST TOTALS:	\$0	\$0		\$		

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#### \*\*\*\* CONTRACT (

PROJECT: East Rockaway Inlet to Rockaway Inlet

LOCATION: Queens, New York

This Estimate reflects the scope and schedule in report;

Estimate Prepared: Effective Price Level: 1-Oct	ESTIMATED COST				
NUMBER   Feature & Sub-Feature Description   SK   SK   SK   SK   SK   SK   SK   S					
NUMBER   Feature & Sub-Feature Description   SK   SK   SK   SK   SK   SK   SK   S	AL				
A	.)				
03         RESERVOIRS         \$0         \$           04         DAMS         \$0         \$           05         LOCKS         \$0         \$           06         FISH & WILDLIFE FACILITIES         \$0         \$           07         POWER PLANT         \$0         \$           08         ROADS, RAILROADS & BRIDGES         \$0         \$0           09         CHANNELS & CANALS         \$0         \$0           10         BREAKWATER & SEAWALLS         \$0         \$0           CONSTRUCTION ESTIMATE TOTALS:         \$0         \$0         0.0%           CONSTRUCTION MANAGEMENT         \$0         \$0         0.0%           CONSTR					
04         DAMS         \$0         \$           05         LOCKS         \$0         \$           06         FISH & WILDLIFE FACILITIES         \$0         \$           07         POWER PLANT         \$0         \$           08         ROADS, RAILROADS & BRIDGES         \$0         \$0           09         CHANNELS & CANALS         \$0         \$0           10         BREAKWATER & SEAWALLS         \$0         \$0           CONSTRUCTION ESTIMATE TOTALS:         \$0         \$0         0.0%           CONSTRUCTION MANAGEMENT         \$0         \$0         0.0%           CONSTRUCTION MANAGEMENT         \$0         \$0         0.0%           0.2%         Project Operation:         \$0         \$0         0.0%					
05         LOCKS         \$0         \$           06         FISH & WILDLIFE FACILITIES         \$0         \$           07         POWER PLANT         \$0         \$           08         ROADS, RAILROADS & BRIDGES         \$0         \$0           09         CHANNELS & CANALS         \$0         \$0           10         BREAKWATER & SEAWALLS         \$0         \$0           CONSTRUCTION ESTIMATE TOTALS:         \$0         \$0         0.0%           01         LANDS AND DAMAGES         \$0         \$0         0.0%           0.19         Planning & Environmental Compliance         \$0         \$0         0.0%           0.19         Planning & Environmental Compliance         \$0         \$0         0.0%           0.6%         Engineering & Design         \$0         \$0         0.0%           0.19         Reviews, ATRs, IEPRs, VE         \$0         \$0         0.0%           0.19         Life Cycle Updates (cost, schedule, risks)         \$0         \$0         0.0%           0.19         Contracting & Reprographics         \$0         \$0         0.0%           0.49         Engineering During Construction         \$0         \$0         0.0%           0	-				
06         FISH & WILDLIFE FACILITIES         \$0         \$           07         POWER PLANT         \$0         \$           08         ROADS, RAILROADS & BRIDGES         \$0         \$0           09         CHANNELS & CANALS         \$0         \$0           10         BREAKWATER & SEAWALLS         \$0         \$0           CONSTRUCTION ESTIMATE TOTALS:         \$0         \$0         0.0%           01         LANDS AND DAMAGES         \$0         \$0         0.0%           0.1%         Project Management         \$0         \$0         0.0%           0.1%         Planning & Environmental Compliance         \$0         \$0         0.0%           0.6%         Engineering & Design         \$0         \$0         0.0%           0.1%         Reviews, ATRs, IEPRs, VE         \$0         \$0         0.0%           0.1%         Reviews, ATRs, IEPRs, VE         \$0         \$0         0.0%           0.1%         Contracting & Reprographics         \$0         \$0         0.0%           0.1%         Contracting & Reprographics         \$0         \$0         0.0%           0.3%         Planning During Construction         \$0         \$0         0.0%	-				
07         POWER PLANT         \$0         \$           08         ROADS, RAILROADS & BRIDGES         \$0         \$0           09         CHANNELS & CANALS         \$0         \$0           10         BREAKWATER & SEAWALLS         \$0         \$0           CONSTRUCTION ESTIMATE TOTALS:         \$0         \$0         0.0%           01         LANDS AND DAMAGES         \$0         \$0         0.0%           0.3%         Project Management         \$0         \$0         0.0%           0.1%         Planning & Environmental Compliance         \$0         \$0         0.0%           0.6%         Engineering & Design         \$0         \$0         0.0%           0.1%         Reviews, ATRs, IEPRs, VE         \$0         \$0         0.0%           0.1%         Life Cycle Updates (cost, schedule, risks)         \$0         \$0         0.0%           0.1%         Contracting & Reprographics         \$0         \$0         0.0%           0.4%         Engineering During Construction         \$0         \$0         0.0%           0.4%         Engineering During Construction         \$0         \$0         0.0%           0.5%         Project Operations         \$0         \$0	-				
08         ROADS, RAILROADS & BRIDGES         \$0           09         CHANNELS & CANALS         \$0           10         BREAKWATER & SEAWALLS         \$0           CONSTRUCTION ESTIMATE TOTALS:         \$0         \$0           0.1         LANDS AND DAMAGES         \$0         \$0         0.0%           0.3%         Project Management         \$0         \$0         0.0%           0.1%         Planning & Environmental Compliance         \$0         \$0         0.0%           0.6%         Engineering & Design         \$0         \$0         0.0%           0.1%         Reviews, ATRs, IEPRs, VE         \$0         \$0         0.0%           0.1%         Life Cycle Updates (cost, schedule, risks)         \$0         \$0         0.0%           0.1%         Contracting & Reprographics         \$0         \$0         0.0%           0.4%         Engineering During Construction         \$0         \$0         0.0%           0.3%         Planning During Construction         \$0         \$0         0.0%           0.5%         Project Operations         \$0         \$0         0.0%           0.5%         Project Operations         \$0         \$0         0.0%	-				
O9         CHANNELS & CANALS         \$0           10         BREAKWATER & SEAWALLS         \$0           CONSTRUCTION ESTIMATE TOTALS:         \$0         \$0         0.0%           O1         LANDS AND DAMAGES         \$0         \$0         0.0%           O3         Project Management         \$0         \$0         0.0%           0.1%         Planning & Environmental Compliance         \$0         \$0         0.0%           0.6%         Engineering & Design         \$0         \$0         0.0%           0.1%         Reviews, ATRs, IEPRs, VE         \$0         \$0         0.0%           0.1%         Life Cycle Updates (cost, schedule, risks)         \$0         \$0         0.0%           0.1%         Contracting & Reprographics         \$0         \$0         0.0%           0.1%         Engineering During Construction         \$0         \$0         0.0%           0.4%         Engineering During Construction         \$0         \$0         0.0%           0.3%         Planning During Construction         \$0         \$0         0.0%           0.5%         Project Operations         \$0         \$0         0.0%           20         Project Operation:	-				
CONSTRUCTION ESTIMATE TOTALS:  \$0 \$0 0.0%  LANDS AND DAMAGES  \$0 \$0 0.0%  LANDS AND DAMAGES  \$0 \$0 0.0%  \$0 0.0%	\$				
CONSTRUCTION ESTIMATE TOTALS: \$0 \$0 0.0%  1 LANDS AND DAMAGES \$0 \$0 0.0%  2 PLANNING, ENGINEERING & DESIGN  2 Project Management \$0 \$0 0.0%  2 Planning & Environmental Compliance \$0 \$0 0.0%  3 Engineering & Design \$0 \$0 0.0%  3 Engineering & Design \$0 \$0 0.0%  3 Engineering & Cost, schedule, risks) \$0 \$0 0.0%  3 Life Cycle Updates (cost, schedule, risks) \$0 \$0 0.0%  3 Engineering During Construction \$0 \$0 0.0%  3 Planning During Construction \$0 \$0 0.0%  3 Planning During Construction \$0 \$0 0.0%  3 Planning During Construction \$0 \$0 0.0%  3 Poject Operations \$0 \$0 0.0%  3 CONSTRUCTION MANAGEMENT  1.5% Construction Management \$0 \$0 0.0%  3 Project Operation: \$0 \$0 0.0%  3 Project Operation: \$0 \$0 0.0%	\$				
30       PLANNING, ENGINEERING & DESIGN         0.3%       Project Management       \$0       \$0       0.0%         0.1%       Planning & Environmental Compliance       \$0       \$0       0.0%         0.6%       Engineering & Design       \$0       \$0       0.0%         0.1%       Reviews, ATRs, IEPRs, VE       \$0       \$0       0.0%         0.1%       Life Cycle Updates (cost, schedule, risks)       \$0       \$0       0.0%         0.1%       Contracting & Reprographics       \$0       \$0       0.0%         0.4%       Engineering During Construction       \$0       \$0       0.0%         0.3%       Planning During Construction       \$0       \$0       0.0%         0.5%       Project Operations       \$0       \$0       0.0%         31       CONSTRUCTION MANAGEMENT       \$0       \$0       0.0%         0.2%       Project Operation:       \$0       \$0       0.0%	\$				
30 PLANNING, ENGINEERING & DESIGN  0.3% Project Management \$0 \$0 0.0%  0.1% Planning & Environmental Compliance \$0 \$0 0.0%  0.6% Engineering & Design \$0 0.0%  0.1% Reviews, ATRs, IEPRs, VE \$0 \$0 0.0%  0.1% Life Cycle Updates (cost, schedule, risks) \$0 \$0 0.0%  0.1% Contracting & Reprographics \$0 \$0 0.0%  0.4% Engineering During Construction \$0 \$0 0.0%  0.3% Planning During Construction \$0 \$0 0.0%  0.5% Project Operations \$0 \$0 0.0%  31 CONSTRUCTION MANAGEMENT  1.5% Construction Management \$0 \$0 0.0%  0.2% Project Operation: \$0 \$0 0.0%	0				
0.3%         Project Management         \$0         \$0         0.0%           0.1%         Planning & Environmental Compliance         \$0         \$0         0.0%           0.6%         Engineering & Design         \$0         \$0         0.0%           0.1%         Reviews, ATRs, IEPRs, VE         \$0         \$0         0.0%           0.1%         Life Cycle Updates (cost, schedule, risks)         \$0         \$0         0.0%           0.1%         Contracting & Reprographics         \$0         \$0         0.0%           0.4%         Engineering During Construction         \$0         \$0         0.0%           0.3%         Planning During Construction         \$0         \$0         0.0%           0.5%         Project Operations         \$0         \$0         0.0%           31         CONSTRUCTION MANAGEMENT         \$0         \$0         0.0%           1.5%         Construction Management         \$0         \$0         0.0%           0.2%         Project Operation:         \$0         \$0         0.0%	-				
0.1%         Planning & Environmental Compliance         \$0         \$0         0.0%           0.6%         Engineering & Design         \$0         \$0         0.0%           0.1%         Reviews, ATRs, IEPRs, VE         \$0         \$0         0.0%           0.1%         Life Cycle Updates (cost, schedule, risks)         \$0         \$0         0.0%           0.1%         Contracting & Reprographics         \$0         \$0         0.0%           0.4%         Engineering During Construction         \$0         \$0         0.0%           0.3%         Planning During Construction         \$0         \$0         0.0%           0.5%         Project Operations         \$0         \$0         0.0%           31         CONSTRUCTION MANAGEMENT         \$0         \$0         0.0%           0.2%         Project Operation:         \$0         \$0         0.0%					
0.6%         Engineering & Design         \$0         0.0%           0.1%         Reviews, ATRs, IEPRs, VE         \$0         \$0         0.0%           0.1%         Life Cycle Updates (cost, schedule, risks)         \$0         \$0         0.0%           0.1%         Contracting & Reprographics         \$0         \$0         0.0%           0.4%         Engineering During Construction         \$0         \$0         0.0%           0.3%         Planning During Construction         \$0         \$0         0.0%           0.5%         Project Operations         \$0         \$0         0.0%           31         CONSTRUCTION MANAGEMENT         \$0         \$0         0.0%           1.5%         Construction Management         \$0         \$0         0.0%           0.2%         Project Operation:         \$0         \$0         0.0%	C				
0.1%         Reviews, ATRs, IEPRs, VE         \$0         \$0         0.0%           0.1%         Life Cycle Updates (cost, schedule, risks)         \$0         \$0         0.0%           0.1%         Contracting & Reprographics         \$0         \$0         0.0%           0.4%         Engineering During Construction         \$0         \$0         0.0%           0.3%         Planning During Construction         \$0         \$0         0.0%           0.5%         Project Operations         \$0         \$0         0.0%           31         CONSTRUCTION MANAGEMENT         \$0         \$0         0.0%           0.2%         Project Operation:         \$0         \$0         0.0%	0				
0.1%         Life Cycle Updates (cost, schedule, risks)         \$0         \$0         0.0%           0.1%         Contracting & Reprographics         \$0         \$0         0.0%           0.4%         Engineering During Construction         \$0         \$0         0.0%           0.3%         Planning During Construction         \$0         \$0         0.0%           0.5%         Project Operations         \$0         \$0         0.0%           31         CONSTRUCTION MANAGEMENT         \$0         \$0         0.0%           1.5%         Construction Management         \$0         \$0         0.0%           0.2%         Project Operation:         \$0         \$0         0.0%	0				
0.1%         Contracting & Reprographics         \$0         \$0         0.0%           0.4%         Engineering During Construction         \$0         \$0         0.0%           0.3%         Planning During Construction         \$0         \$0         0.0%           0.5%         Project Operations         \$0         \$0         0.0%           31         CONSTRUCTION MANAGEMENT         \$0         \$0         0.0%           0.2%         Project Operation:         \$0         \$0         0.0%	0				
0.4%         Engineering During Construction         \$0         \$0         0.0%           0.3%         Planning During Construction         \$0         \$0         0.0%           0.5%         Project Operations         \$0         \$0         0.0%           31         CONSTRUCTION MANAGEMENT         50         \$0         0.0%           0.2%         Project Operation:         \$0         \$0         0.0%           0.2%         Project Operation:         \$0         \$0         0.0%	\$				
0.3%         Planning During Construction         \$0         \$0         0.0%           0.5%         Project Operations         \$0         \$0         0.0%           31         CONSTRUCTION MANAGEMENT         50         \$0         0.0%           0.2%         Project Operation:         \$0         \$0         0.0%           0.2%         Project Operation:         \$0         \$0         0.0%	0				
0.5%         Project Operations         \$0         \$0         0.0%           31         CONSTRUCTION MANAGEMENT         50         \$0         0.0%           1.5%         Construction Management         \$0         \$0         0.0%           0.2%         Project Operation:         \$0         \$0         0.0%	0				
31         CONSTRUCTION MANAGEMENT           1.5%         Construction Management         \$0         \$0         0.0%           0.2%         Project Operation:         \$0         \$0         0.0%	0				
1.5%         Construction Management         \$0         \$0         0.0%           0.2%         Project Operation:         \$0         \$0         0.0%	Ü				
0.2% Project Operation: \$0 \$0 0.0%					
, ,	0				
	C				
0.2% Project Management \$0 \$0 0.0%	C				

\*\*\*\* CONTRACT (

PROJECT: East Rockaway Inlet to Rockaway Inlet

LOCATION: Queens, New York

	Civil Works Work Breakdown Structure		ESTIMATED COST				
			mate Prepare tive Price Lev		<b>20-Jul-16</b> 1-Oct-15		
WBS	Civil Works	COST	CNTG	CNTG	TOTAL		
<b>NUMBER</b>	Feature & Sub-Feature Description	(\$K)	(\$K)	(%)	_(\$K)_		
Α	В	С	D	E	F		
00	PHASE 9 or CONTRACT 9		00		Φ0		
03	RESERVOIRS		\$0		\$0		
04	DAMS		\$0		\$0		
05	LOCKS		\$0		\$0		
06	FISH & WILDLIFE FACILITIES		\$0		\$0		
07	POWER PLANT		\$0		\$0		
80	ROADS, RAILROADS & BRIDGES		\$0		\$0		
09	CHANNELS & CANALS		\$0		\$0		
10	BREAKWATER & SEAWALLS		\$0		\$0		
	CONSTRUCTION ESTIMATE TOTALS:	\$0	\$0	0.0%	\$0		
01	LANDS AND DAMAGES		\$0		\$0		
30	PLANNING, ENGINEERING & DESIGN						
0.39	% Project Management	\$0	\$0	0.0%	\$0		
0.19	% Planning & Environmental Compliance	\$0	\$0	0.0%	\$0		
0.69	% Engineering & Design	\$0	\$0	0.0%	\$0		
0.19	% Reviews, ATRs, IEPRs, VE	\$0	\$0	0.0%	\$0		
0.19	Life Cycle Updates (cost, schedule, risks)	\$0	\$0	0.0%	\$0		
0.19	% Contracting & Reprographics	\$0	\$0	0.0%	\$0		
0.49	6 Engineering During Construction	\$0	\$0	0.0%	\$0		
0.39	76 Planning During Construction	\$0	\$0	0.0%	\$0		
0.59	% Project Operations	\$0	\$0	0.0%	\$0		
31	CONSTRUCTION MANAGEMENT						
1.5%	3 - 3 - 3 - 3 - 3	\$0	\$0	0.0%	\$0		
0.29	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	\$0	\$0	0.0%	\$0		
0.29	% Project Management	\$0	\$0	0.0%	\$0		
	CONTRACT COST TOTALS:	\$0	\$0		\$0		

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\*\*\*\* CONTRACT (

PROJECT: East Rockaway Inlet to Rockaway Inlet

LOCATION: Queens, New York

Civil Works Work Breakdown Structure			ESTIMATED COST				
			Estin Effect	<b>20-Jul-16</b> 1-Oct-15			
WBS	5	Civil Works	COST	CNTG	CNTG	TOTAL	
NUMBE	<u>ER</u>	Feature & Sub-Feature Description	(\$K)	(\$K)	(%)	(\$K)	
Α		В	С	D	E	F	
		PHASE 10 or CONTRACT 10		•		•	
03		RESERVOIRS		\$0		\$1	
04		DAMS		\$0		\$1	
05		LOCKS		\$0		\$	
06		FISH & WILDLIFE FACILITIES		\$0		\$1	
07		POWER PLANT		\$0		\$1	
80		ROADS, RAILROADS & BRIDGES		\$0		\$	
09		CHANNELS & CANALS		\$0		\$(	
10		BREAKWATER & SEAWALLS		\$0		\$1	
		CONSTRUCTION ESTIMATE TOTALS:	\$0	\$0	0.0%	\$	
01		LANDS AND DAMAGES		\$0		\$	
30		PLANNING, ENGINEERING & DESIGN					
	0.3%	Project Management	\$0	\$0	0.0%	\$	
	0.1%	Planning & Environmental Compliance	\$0	\$0	0.0%	\$(	
	0.6%	Engineering & Design	\$0	\$0	0.0%	\$0	
	0.1%	Reviews, ATRs, IEPRs, VE	\$0	\$0	0.0%	\$0	
	0.1%	Life Cycle Updates (cost, schedule, risks)	\$0	\$0	0.0%	\$6	
	0.1%	Contracting & Reprographics	\$0	\$0	0.0%	\$6	
	0.4%	Engineering During Construction	\$0	\$0	0.0%	\$0	
	0.3%	Planning During Construction	\$0	\$0	0.0%	\$(	
	0.5%	Project Operations	\$0	\$0	0.0%	\$0	
31		CONSTRUCTION MANAGEMENT					
	1.5%	Construction Management	\$0	\$0	0.0%	\$	
	0.2%	Project Operation:	\$0	\$0	0.0%	\$0	
	0.2%	Project Management	\$0	\$0	0.0%	\$1	
		CONTRACT COST TOTALS:	\$0	\$0		\$	